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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,867	06/04/2001	Emad M. Awadalla	10007051-1	4669

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

POLTORAK, PIOTR

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/873,867		AWADALLA, EMAD M.	
	Examiner		Art Unit	
	Peter Poltorak		2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7,8,10,17,19-24 and 27-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-8,10,17,19-24 and 27-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Amendment, and remarks therein, received on 1/30/06 have been entered and carefully considered.

Response to Amendment

1. The Amendment introduces a new limitation into the originally sole independent claims 1, 17 and 23 and dependent claims 2-5, 7-8, 19-20, 22 and 27-29. The newly introduced limitation has required a new search and consideration of the pending claims. The new search has resulted in newly discovered prior art. New grounds of rejection based on the newly discovered prior art follow below.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.
2. The newly discovered art addresses the new limitation and applicant's arguments presented below in the current Office Action.
3. Claims 1-5, 7-8, 10, 17, 19-24 and 27-29 have been examined.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 8, 23-24, 27-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 8 recites: “validating said flag on the printer by receiving a decryption key on the printer by receiving a decryption key with the printer that corresponds to said flag.
6. It is not clear how receiving a decryption key can validate a flag and as a result the intended meaning of the limitation is not understood. The language as written simply implies that a printer receives a decryption key which reads on a flag’s validation. Consequently, the intended significance of recited “validating said flag on the printer” limitation is not understood.
7. Claim 23 recites: “said at least one processor being configured to execute a decryption algorithm associated with the encryption algorithm to decrypt said encrypted file”. Even though the limitation seem to be implying that it is the decryption algorithm that is associated with the encryption algorithm the clear metes and bounds of this limitation cannot be established since the limitation could also be interpreted as implying the at least one processor being associated with the encryption algorithm. For purposes of further examination the phrase is treated as though the decryption algorithm is associated with the encryption algorithm. However, the language should be amended to clearly identify the intended meaning of the claim.
8. Claims 24, 27-29 are rejected by virtue of their dependence.
Appropriate correction is required.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

9. Claims 1, 2, 5, 7-8, 10, 17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (U.S. Patent No. 6089765) in view of Goldstein (U.S. Patent No. 6128735).

10. As per claims 1, 17, Mori teaches a printing system comprising a computer (20) communicating with a printer (10) both using processors (21 and 11 respectively, Mori, Fig. 1-3).

Mori discloses adding a header to a file that contains data to be printed (Mori, col. 4 lines 15-20) and transmitting the file and the unencrypted header to the printer (Mori, col. 6 lines 45-57).

Mori does not disclose that the transmitted file is encrypted and that the header identifies the encrypting algorithm, a receiving device decrypting the file using the decryption algorithm and outputting the file.

Goldstein teaches a transmitted file that is encrypted with the header identifying the encrypting algorithm, a receiving device decrypting the file using the decryption algorithm and outputting the file (e.g. Goldstein, Fig. 7 and 5, and col. 6 lines 22-27).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to file that is encrypted with the header identifying the encrypting algorithm, a receiving device decrypting the file using the decryption algorithm and outputting the file as taught by Goldstein. One of ordinary skill in the art would have been motivated to transmit file that is encrypted with the header identifying the encrypting

algorithm in order to protect the file from unauthorized receiver or interceptor of the file while allowing authorized user to easily decrypt the file.

11. As per claims 2, 5, 7-8 and 19-20 Mori discloses that a sending device is the computer and the receiving device is the printer (Mori, Fig. 2-3 and col. 6 lines 45-58), and the algorithm identifier disclosed by Goldstein in Fig. 4 reads on a flag (see Microsoft, pg. 198). Furthermore, the flag in Goldstein's invention identifies the encryption algorithm and is recognized and selected solely by the receiving device (e.g. Goldstein, Fig. 7 and 5, and col. 6 lines 22-27). Lastly, as illustrated by Goldstein (e.g. Goldstein, Fig. 2 and col. 4 lines 44-50), in addition to an algorithm a decryption key is needed to decrypt encrypted data. (Similarly, the decryption algorithm must correspond to the encryption algorithm for the decryption being successful.)

Thus, incorporating Goldstein's teaching in Mori's invention would result in printer's recognizing, selecting the received encryption algorithm based on the received flag identifying the encryption algorithm, and on receiving a decryption key with the printer that corresponds to the flag.

12. As per claim 10 Goldstein teaches a plurality of algorithms available to the encryption/decryption process (col. 3 lines 67). Although neither Goldstein nor Mori explicitly teach that a plurality of decryption algorithms is available to the printer the limitation is implicit; neither Goldstein nor Mori disclose any prohibition of the encryption/decryption algorithms to be used and thus the available algorithms disclosed by Goldstein are available to the printer as well.

13. Claims 3 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (U.S. Patent No. 6089765) in view of Goldstein (U.S. Patent No. 6128735) and further in view of Newton (Harry Newton, "Newton's Telecom Dictionary", ISBN: 093648783, 1996).

The method taught by Mori in view of Goldstein has been discussed above.

14. Mori in view of Goldstein do not explicitly teach converting a file for printing to a printer description language format.

However, converting a file for printing to a printer description language is old and well-known in the art as illustrated by Newton (PCL pg. 873, Postscript pg. 913 etc.).

One of ordinary skill in the art at the time of applicant's invention would have been motivated to convert a file for printing to a printer description language in order to communicate a print job to a variety of printers, including laser printers.

Furthermore, the examiner points out that converting the file to any of the disclosed by applicant formats would have been obvious variations that are well known in the art. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to convert the file into any of a postscript, PCL, PDF or XML format especially in light of the benefits of these technologies as evidenced by their commercial success.

15. Claims 4, 22-24 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (U.S. Patent No. 6089765) in view of Goldstein (U.S. Patent No. 6128735) and further and further view of Menezes et al. (Alfred J. Menezes,

Paul C. van Oorschot, Scott A. Vanstone, "Handbook of applied cryptography", 1997, ISBN: 0849385237).

The method taught by Mori in view of Goldstein has been discussed above.

16. As per claims 4 and 22-23 Mori in view of Goldstein do not explicitly teach that the decryption algorithm is associated with and corresponds to the encryption algorithm. Menezes teach the decryption algorithm associated with and corresponding to the encryption algorithm (Menezes, pg. 15 "Symmetric-key encryption" and pg. 25-26 "Public-key cryptography").

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement a decryption algorithm associated with and corresponding to the encryption algorithm as taught by Menezes into Mori in view of Goldstein's invention. One of ordinary skill in the art would have been motivated to implement a decryption algorithm associated with and corresponding to the encryption algorithm in order be able to decrypt the data encrypted with the encrypted algorithm.

17. Although as per claim 24 Mori utilizes memory connected to the at least one processor (e.g. Fig. 3), Mori in view of Goldstein do not explicitly teach that the memory stores the decryption algorithm. However, the limitation is implicit. Incorporating Goldstein encryption/decryption algorithms require memory in order for the decryption process be feasible.

18. As per claims 27-29 Goldstein teaches a plurality of algorithms available to the encryption/decryption process (col. 3 lines 67) and the at least one processor selecting a decryption algorithm for decrypting the encrypted file based upon the

identifier (e.g. Goldstein, Fig. 7 and 5, and col. 6 lines 22-27). Also, as clearly shown by Goldstein (e.g. Goldstein, Fig. 2 and col. 4 lines 44-50) and Menezes (Menezes, pg. 15 "Symmetric-key encryption" and pg. 25-26 "Public-key cryptography"), in addition to an algorithm a decryption key is needed to decrypt encrypted data.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Poltorak whose telephone number is (571) 272-

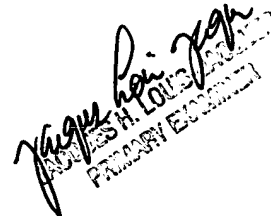
Art Unit: 2134

3840. The examiner can normally be reached Monday through Thursday from 9:00 a.m. to 4:00 p.m. and alternate Fridays from 9:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


4/8/6


JACQUES H. LOUIS JACQUES
PATENT EXAMINER